

ABSTRACT

PURPOSE:To collect metal to be collected without entry of oxidizing gas into molten metal, by arranging air permeable plate-shaped member along molten metal level and jetting metal fines to be collected and oxidizing gas to plate shaped member. **CONSTITUTION:**Molten metal 90 having affinity with metal to be collected is contained in a collecting vessel 1, and an air permeable plate-shaped member 61 is arranged along molten metal level on a collecting dish 73. Area occupied by permeating holes in the member 61 is adjusted to about 50-80%, inner diameter of permeating hole is about 2-20mm, and the metal 90 is circulated by a pump 71 through a piping 76. Metal fines to be collected, adiabatically expanded and cooled by opened hole part of a nozzle 3 and oxidizing gas are made to jetting current and impinge to the member 61 and impinging wave surface is formed. Thereby, oxidizing gas is reflected and stayed at an upper part space 81 and removed by an exhausting pipe 40. On the other hand, fines are permeated through the member 61 and collected by the metal 90 in the dish 73 and overflows to outside from a side wall 77. In this way, reoxidation of metal to be collected is prevented and adhesion of molten metal splash to the nozzle 3, etc., is prevented.